

Aluminium Profiles & Extrusions



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Aluminium Extrusion Mold & Die



Product Description:

The molds for extruding aluminium profiles can be divided into two categories: flat molds and hollow molds. Hollow molds can be divided into plane split combined molds, star combined molds, and tongue-shaped molds. Among them, plane split combined molds are the most commonly used, accounting for more than 95%.

- The flat die is used to extrude solid aluminium profiles. The die can be made very thin. The die used on the small and medium extruder below 14.7MN can be as thin as 20-25 mm, and the die used for the 15.7-34.3MN extruder can be taken About 30 mm thick. The thin mold is easy to process and manufacture, and it is convenient to repair the mold and polish the surface of the working belt. In order to ensure mold strength and product dimensional stability, the thickness or number of mold pads should be increased.
- The plane splitter combined die is used for extruding hollow aluminium profiles. Due to the secondary deformation, the required extrusion force is large, which is easy to cause a stuffy car. Extruding hollow aluminium profiles with this kind of mold has a high yield rate, easy processing and manufacturing of molds, simple production and operation, and can produce various thin-walled hollow aluminium profiles and porous hollow aluminium profiles with high precision, high smooth surface, and complex shapes. However, it is difficult to repair the mold and clean up the residual material during or after the extrusion.
- The star-shaped combined die is suitable for hollow aluminium profiles with larger external dimensions. The extrusion force is smaller than that of the splitter die. The yield of aluminium profiles is higher, and the residual material cleaning is easier, but the mold processing is more difficult.
- The tongue-shaped mold has a long residual material, and the aluminium profile yield is low. The difficulty of mold processing is between the two, but the extrusion resistance is small, and the residual material is easy to clean during or at the end of the extrusion, and the mold repair is convenient , So it is mostly used for thin-walled hollow aluminium profiles or hard alloy military aluminium materials that require high extrusion force and high quality requirements.

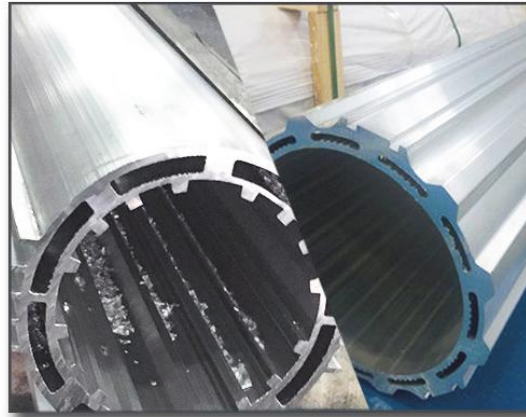
Product Specifications:

Aluminium Extrusion Mold			
Die Dimension	60 to 1000mm	Available thickness	0.6-1.8mm
Material	High quality H13	Die type	Hollow die &Solid die
Hardness	HRB hardness 48-52	Cavities	Customized
Heating	Vacuum heat treatment	Delivery Time	Within in 15 working days
Flow Manifold	Computer simulation	Equipped Plant	Extruder press, die oven, billet furnace
Application	Tooling for the extruders to produce aluminium profiles, such as window profiles, industrial profiles, door profiles and profiles for curtain wall, etc		
MOQ	500 set	Package	Wooden box, carton box or customized

Product Features:

- High wear resistance, can be used for a long time
- Good polishability, capable of processing mirror-finished mold holes, and the surface quality of processed products is guaranteed
- Good adhesion, can improve the durability of the drawing die
- The friction coefficient is small, which can greatly reduce the power consumption of drawing
- High corrosion resistance
- The inner hole of the mold is smooth and clean

Aluminium Extrusion for Motor Housing



Product Description:

Since aluminium has good ductility and low specific gravity, aluminium alloy motor housing has the advantages of lightweight, high strength, large cooling area, good heat dissipation, good thermal conductivity, high tensile strength, and beautiful surface. It is widely used in generators, starter motors, micro-motors and other components.

With the in-depth popularization of energy saving, emission reduction and low-carbon concepts, the new energy automobile industry is also experiencing an upsurge in research and development and mass production. aluminium alloy water-cooled circulating heat dissipation housing is widely used as supporting products for new energy vehicles.

Product Specifications:

Alloy Grade	6000 Series
Temper	T3-T8
Size	Customized
Surface Treatment	Anodizing, Powder Coating, Polishing, Electroplating, Shoot Blasting
Processing	CNC, drilling, milling, cutting, welding, bending, assembling.

Shape	Square, Rectangle, Round, Flat, Angle, T profile etc. Or as per customer's requirement.
Thickness	Common profiles thickness: 0.8 - 5.0 mm Anodized protection thickness: 8 - 25 um Powder coating color thickness: 40 - 120 um
Color	Metal silver, champagne, black, white, mirror, customized request available.
Service	OEM/ODM
Application	Electric motor

Chemical Composition:

Aluminum Grade	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Impurity	Al
6063	0.2-0.6	<0.35	<0.1	<0.1	0.45-0.9	<0.1	<0.1	<0.1	<0.15	Rest
6063A	0.3-0.6	0.15-0.35	<0.1	<0.1	0.6-0.9	<0.05	<0.15	<0.1	<0.15	Rest
6061	0.4-0.8	0.7	0.15-0.45	<0.15	0.8-1.2	0.04-0.35	<0.25	<0.15	<0.15	Rest
6005	0.6-0.9	<0.35	<0.1	<0.1	0.4-0.9	0.1	<0.1	<0.1	<0.15	Rest
6060	0.3-0.6	0.1	0.1	<0.1	0.35-0.6	0.05	0.15	0.1	<0.15	Rest

CNC Machining Aluminium Profile



Product Specifications:

Material:	Aluminium Alloy: 6061 / 6063 / 6082 / 7075 / 2011 / 2014 / 2024 / 2017, etc.
Dimensions:	According to the drawing or samples
Processing equipment:	CNC machining center, CNC turning, Grinding machine, CNC Milling machine, Drilling machine, etc.
Surface treatment:	Polishing, Plating, Anodized, Heat treatment, Inactivation, powder coating, etc.
Packing:	PE bag, Carton, Wooden box
Samples:	Available in 7-20 days for different items

Inspection equipment:	CMM (Coordinate measuring machine), Projector, Caliper, Micrometer, Roughness tester, Hardness gauges, etc.
Certificate	ISO9001: 2008, ISO/TS 16949

CNC Workshop:

Capable of assembly, bending, boring, CNC machining, cutting, drilling, fabrication, forming, tapping, milling, mitring, notching, piercing, precision sawing, punching, reaming and welding.

- Precision machining: Our factory is equipped with various CNC machines, including CNC lathes, turning centers with movable tools, horizontal and vertical band saws, etc. We can produce precision aluminium machining parts.
- CNC milling and turning: We have several professional 3, 4 and 5-axis machinery, which helps us provide end-to-end CNC milling and turning services.
- CNC cutting: Using our high-speed CNC machine to complete projects in a minimal amount of time while providing precision cuts and high yields limiting material waste.

Aluminium Heat Sink

Product Description:



Aluminium heat sinks are devices used with other electrical devices that generate heat to help manage heat generation and prevent electronic devices from overheating. The working method of aluminium radiator is very simple. The heat is transferred from the electrical device to the heat sink, which usually has multiple pins or fins, which come from a plane shared with the device. After the heat enters these heat sinks or pins, the air around the heat sink will transfer the heat away from the heat sink and eventually radiate out of the system.

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Product Applications:

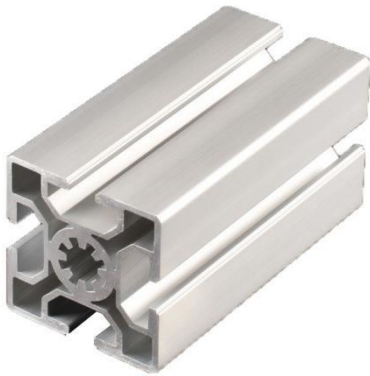
The aluminium heat sink is commonly used in the following situations:

1. LED Lighting
2. Central processing units (Computers, TV)
3. Motor
4. Transistors, Lasers
5. Forced Air Heating and Cooling
6. Solar Thermal Systems
7. Other electronic equipment

Product Specifications:

Alloy	1100, 3003, 6061, 6063
Temper	O/F/H/T5/T6
Process	Extruded,CNC Machining
Tolerance	±1%
Fins	10-100
Width (mm)	8-460
Thickness(mm)	0.25mm - 10mm
Color	Silver/red/black/customized
Finish	anodizing/polishing/brushing/coating/customized
Processing Service	Bending, Decoiling, Welding, Punching, Cutting
Standard	ASTM /GM
Packing	1.Plastic film & kraft paper 2.Plastic bag 3.Carton & plywood 4.Plastic film & pallet

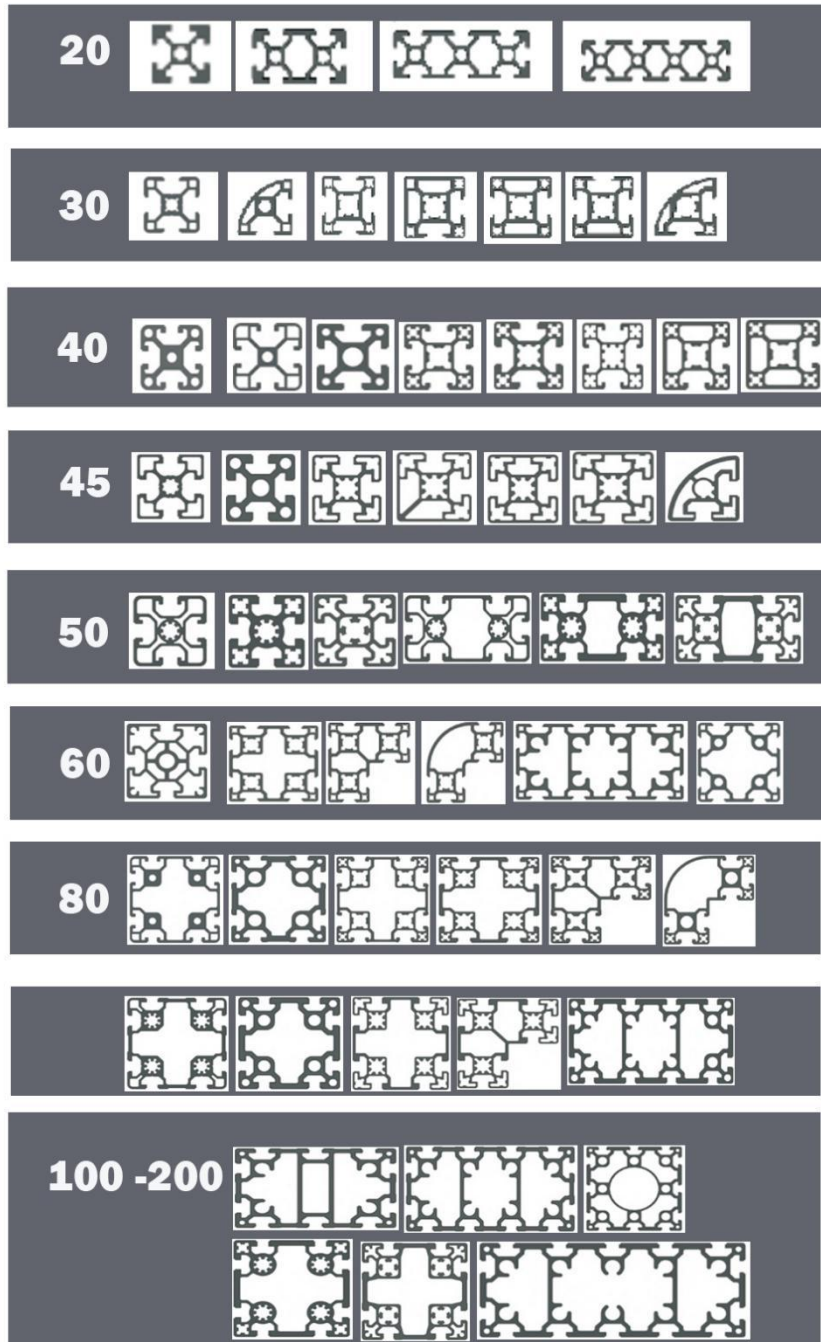
T Slot Aluminium Extrusion



Product Description:

T slot aluminium extrusions are extremely useful for a wide range of framing applications. T-slots can be used for any number of structural applications, and require no welding or special tools for assembly.

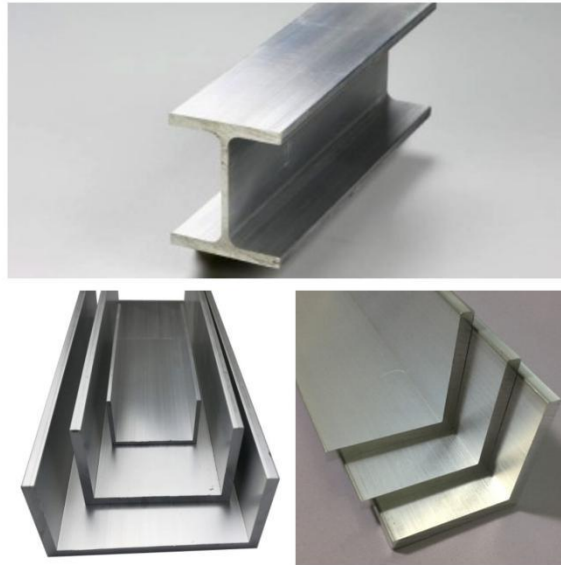
Product Specifications:



Alloy	1100, 3003, 6005, 6061, 6063
Temper	O/F/H/T5/T6
Dimension	20,30,40,45,50,60,80,90,100 series
Length	1-6 meter/pcs or Customized
Surface Treatment	Mill-Finished, Anodizing, Powder Coating, Electrophoresis, Wood Grain, Polishing, Brushing, etc

Color	Silver, Champagne, Bronze, Golden, Black, Sand coating, Anodized Acid and alkali or Customized
Standard	ASTM /GM

Aluminium Channel - H/L/U/T



Product Description:

Widely used for buildings, walkways, headers, and platforms. It's lightweight, corrosion-resistant, and designed to span over a distance making it an excellent choice wherever strength is required.

Product Specifications:

Alloy	6000 series
Temper	T4, T5, T6
Size / Thickness	size from 4mm to 160mm , thickness from 0.6 to 8mm
Length	customized
Surface treatment	mill finish, anodized, powder coating , wood grain, sand blasting , and

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	more
Colors	silver , black , customized
payment terms	T/T 30% for deposit, balance before shipping.

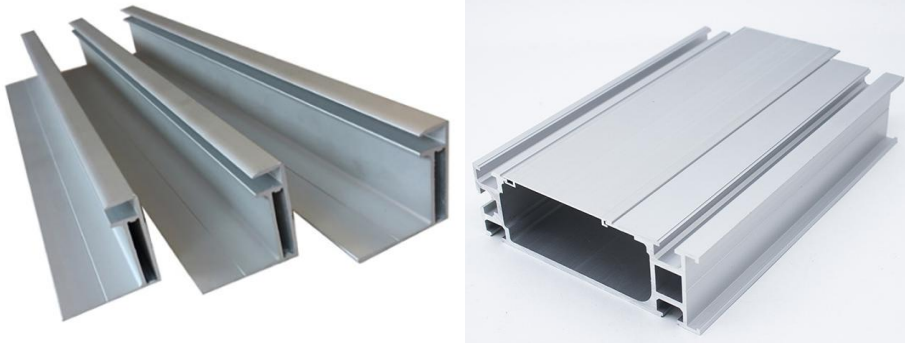
LED Aluminium Profile



Product Specifications:

Alloy	6000 series
Temper	T4, T5, T6
Size / Thickness	Common profiles thickness from 0.8 to 5.0mm, length from 3m-6m or customized available; Anodize protection film thickness from 8~25 um, powder coating from 40 ~ 120 um.
Shape	square, round, t shaped, rectangular, customized
Length	customized
Surface treatment	mill finish, anodized, powder coating , wood grain, sand blasting , and more
Colors	silver , black , customized
payment terms	T/T 30% for deposit, balance before shipping.

Solar Frames & Brackets Aluminium Profile



Product Specifications:

Application	Customized Home Solar Flat Roof System
Installation Site	Open field
Wind Load	Up to 60m/s
Snow Load	1.4kN/m ²

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Chongqing Chal Precision Aluminium Co. ,Ltd.

Applicable Module	Framed or frameless
Module Orientation	Landscape , Portrait
Module Inclination	0° - 45°
Ground Clearance	≥0.6m
Color	Natural
Warranty	10 years and 25years service life

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